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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/470,265	12/22/1999	KARL M ROBINSON	303.455US3	5953

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EXAMINER	
TRAN, THIEN F	

ART UNIT	PAPER NUMBER
2811	

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/470,265	Applicant(s) ROBINSON, KARL M	
	Examiner Thien F Tran	Art Unit 2811	

-- Th MAILING DATE of this communication appears on the cover she t with th correspond nce addr ss --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *19,20,53,79-87,98-102 and 104-124* is/are pending in the application.

4a) Of the above claim(s) *80,83,86,98-102,104-106 and 113-124* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *19,20,53,79,81,82,84,85,87 and 107-112* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.
> (e) the invention was described in-
> (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effect under this subsection of a national application published under section 122(b) only if the international application designating the United States was published under Article 21(2)(a) of such treaty in the English language; or
> (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that a patent shall not be deemed filed in the United States for the purposes of this subsection based on the filing of an international application filed under the treaty defined in section 351(a).

Claims 19, 53, 79, 81, 85, 87, 107, 111, 112 are rejected under 35 U.S.C. 102(e) as being anticipated by Azuma et al. (US 5,708,302).

Azuma et al. discloses a capacitor (Fig. 1) comprising a first conductive capacitor plate 34 formed of a first material; a second conductive capacitor plate 28; and a dielectric layer 26 interposed between said first and second conductive capacitor plates, wherein said dielectric is a metal oxide layer overlying the first conductive capacitor plate.

Regarding claims 79, 85, 107, 111, the dielectric layer 26 is a metal oxide layer comprising titanium.

Regarding claims 81, 87, the second conductive capacitor plate 28 is formed of metal.

Regarding claims 108, 112, the capacitor further comprises a diffusion barrier layer 38 interposed between the first conductive plate 34 and the dielectric of metal oxide layer 26.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 20, 82, 84, 109, 110 are rejected under 35 U.S.C. 103(a) as being unpatentable over Blodgett et al. (US 5,811,990) in view of Azuma et al. (US 5,708,302).

Blodgett et al. discloses a memory system 710 (Fig. 18) comprising a monolithic memory device 705 having dynamic random access memory device containing a capacitor; and a processor 710 used to generate external control signals which access the monolithic memory device 705 (col. 14, lines 10-15). Blodgett et al. does not explicitly disclose the capacitor comprising a first conductive capacitor plate, a second conductive capacitor plate and a dielectric of metal oxide layer. Azuma et al. as described in details above discloses the capacitor as claimed. It would have been obvious to person having ordinary skill in the art at the time the invention was made to substitute the capacitor as taught by Azuma et al. for the capacitor in the memory system of Blodgett et al. in order to provide an improved capacitor which adheres well to the substrate and does not have short–inducing surface irregularities. As a result, the

modified Blodgett et al. provides a capacitor (Fig. 1) comprising a first conductive capacitor plate 34 formed of a first material; a second conductive capacitor plate 28; and a dielectric layer 26 interposed between said first and second conductive capacitor plates, wherein said dielectric is a metal oxide layer overlying the first conductive capacitor plate.

Regarding claims 82 and 109, the dielectric layer 26 is a metal oxide layer comprising titanium.

Regarding claim 84, the second conductive capacitor plate 28 is formed of metal.

Regarding claim 110, the capacitor further comprises a diffusion barrier layer 38 interposed between the first conductive plate 34 and the dielectric of metal oxide layer 26.

Response to Arguments

Applicant's arguments filed 09-09-2002 have been fully considered but they are not persuasive. Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references. Applicant's argument cannot replace evidence when evidence is necessary. It is clear that Azuma reference teaches a dielectric layer being a metal oxide layer even though the process of making the metal oxide layer is different from the process used by applicant. However, in the device claims, it would not be matter how the dielectric layer is formed. It is the patentability of the claimed product and not of the recited process steps which must be established. In re Thorpe, 227 USPQ 964,

966 (Fed. Cir. 1985), all of which make it clear that it is the patentability of the final structure of the product "gleaned" from the process steps, which must be determined in a " product by process" claim, and not the patentability of the process. See also MPEP 2113. Moreover, an old and obvious product produced by a new method is not a patentable product, whether claimed in "product by process" claims or not. In conclusion, using a different process does not change or make the resulting product patentable distinguished over the structure disclosed by Azuma.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thien F Tran whose telephone number is (703) 308-4108. The examiner can normally be reached on 8:00AM - 4:30PM Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (703) 308-2772. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9318 for regular communications and (703) 872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Tom Thomas

tt
November 6, 2002

TOM THOMAS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800